Listing of Claims

The following listing of claims will replace all prior versions, and listings, of claims in the subject application:

1. (currently amended) An image processing method for performing color conversion among a plurality of image forming apparatuses, comprising the steps of:

a) producing a plurality of color profiles provided for performing color conversion on input image information within a same color space or through different color spaces; [[and]]

b) selecting one of said plurality of color profiles; and

c) using said selected color profile to convert input color data, in a device-dependent color space of one of said plurality of image forming apparatuses, to converted color data, in a device-dependent color space of another of said plurality of image forming apparatuses, each of said input color data and said converted color data corresponding to a same color in a data device-independent color space,

~~whereby~~ wherein color in an image formed by said one of said plurality of image forming apparatuses using said device-dependent input color data ~~may be made effectively approximate~~ is visually equal to color of an image formed by said another of said plurality of image forming apparatuses using said converted device-dependent color data.

2. (original) The image processing method as claimed in claim 1, wherein:

said step a) comprises the step of actually measuring color of an image formed by one of said plurality of image forming apparatuses, and producing the color profile whereby color of an image formed by another of said plurality of image forming apparatuses may be made to

effectively approximate the thus-measured color.

3. (original) The image processing method as claimed in claim 1, wherein:

said step b) comprises the steps of:

b-1) inputting image data in an RGB color space; and

b-2) selecting one of said plurality of color profiles provided for performing color conversion within the RGB color space whereby colors of images formed by first and second image forming apparatuses of said plurality of image forming apparatuses may be made to effectively approximate one another.

4. (original) The image processing method as claimed in claim 1, wherein:

said step b) comprises the steps of:

b-1) inputting image data in an RGB color space; and

b-2) selecting one of said plurality of color profiles provided for performing color conversion from the RGB color space through a CMYK color space whereby colors of images formed by first and second image forming apparatuses of said plurality of image forming apparatuses may be made to effectively approximate one another.

5. (original) The image processing method as claimed in claim 1, wherein:

said plurality of color profiles are provided in a host computer which provides color information to the image forming apparatus for causing it to form a color image, and said step b) is performed by said host computer.

6. (original) The image processing method as claimed in claim 1, wherein:

said plurality of color profiles are provided in the image forming apparatus, and said step b) is performed by said image forming apparatus.

7. (original) The image processing method as claimed in claim 1, wherein:

color profiles selected in said step b) comprise a color profile whereby a color difference in a predetermined color space, which does not depend on apparatus types, between images formed by the image forming apparatuses, may be made to effectively approximate each other.

8. (original) The image processing method as claimed in claim 7, wherein:

said color space which does not depend on apparatus types comprises any one of an LAB color space, an XYZ color space and an LUV color space defined by CIE.

9. (original) The image processing method as claimed in claim 1, wherein:

said step a) of selecting one of said plurality of color profiles to be actually applied is performed externally of the relevant image forming apparatus.

10. (original) The image processing method as claimed in claim 1, wherein:

said step a) of selecting one of said plurality of color profiles to be actually applied is performed from designation of the particular image forming apparatus which is actually applied.

11. (original) The image processing method as claimed in claim 7, wherein:

the color profile which effectively reduces a color difference between images in the

predetermined color space which does not depend on apparatus types is created by the following steps:

c) producing, in a computer, color patches from uniformly dividing a color space which depends on an apparatus type of a first image forming apparatus;

d) obtaining corresponding color patches in an image formed from said first image forming apparatus according to color patch data produced in said step c);

e) measuring coordinate values of the color patches obtained in said step d) in the predetermined color space which does not depend on apparatus types:

f) obtaining a relationship, for each color patch, between the color space which depends on the apparatus type of the first image forming apparatus and the predetermined color space which does not depend on apparatus types, based on a measurement result in said step e);

g) obtaining a relationship between the predetermined color space which does not depend on apparatus types in an image formed by a second image forming apparatus and the predetermined color space which depends on an apparatus type of said second image forming apparatus; and

h) calculating a coordinate value in the color space which depends on the apparatus type of said second image forming apparatus for each color path whereby color of an image formed by said second image forming apparatus should have a color difference which is effectively reduced from color of an image formed by said first image forming apparatus, according to the relationship between the predetermined color space which does not depend on apparatus types in an image formed by said second image forming apparatus and the color space which depends on the apparatus type of said second image forming apparatus, obtained in said step g).

12. (original) A program comprising instructions causing a computer to execute the respective steps of the image processing method claimed in claim 1.

13. (original) A program comprising instructions causing a computer to execute the respective steps of the image processing method claimed in claim 2.

14. (original) A program comprising instructions causing a computer to execute the respective steps of the image processing method claimed in claim 3.

15. (original) A program comprising instructions causing a computer to execute the respective steps of the image processing method claimed in claim 4.

16. (original) A program comprising instructions causing a computer to execute the respective steps of the image processing method claimed in claim 5.

17. (original) A program comprising instructions causing a computer to execute the respective steps of the image processing method claimed in claim 6.

18. (original) A program comprising instructions causing a computer to execute the respective steps of the image processing method claimed in claim 7.

19. (original) A program comprising instructions causing a computer to execute the respective steps of the image processing method claimed in claim 8.

20. (original) A program comprising instructions causing a computer to execute the respective steps of the image processing method claimed in claim 9.

21. (original) A program comprising instructions causing a computer to execute the respective steps of the image processing method claimed in claim 10.

22. (original) A program comprising instructions causing a computer to execute the respective steps of the image processing method claimed in claim 11.

23. (original) A computer readable information recording medium which stores therein the program claimed in claim 12.

24. (original) A computer readable information recording medium which stores therein the program claimed in claim 13.

25. (original) A computer readable information recording medium which stores therein the program claimed in claim 14.

26. (original) A computer readable information recording medium which stores therein the program claimed in claim 15.

27. (original) A computer readable information recording medium which stores therein

the program claimed in claim 16.

28. (original) A computer readable information recording medium which stores therein the program claimed in claim 17.

29. (original) A computer readable information recording medium which stores therein the program claimed in claim 18.

30. (original) A computer readable information recording medium which stores therein the program claimed in claim 19.

31. (original) A computer readable information recording medium which stores therein the program claimed in claim 20.

32. (original) A computer readable information recording medium which stores therein the program claimed in claim 21.

33. (original) A computer readable information recording medium which stores therein the program claimed in claim 22.

34. (currently amended) An image processing apparatus comprising:

a color conversion part performing color conversion among a plurality of image forming apparatuses; and

a plurality of color profiles whereby colors of images formed by the respective image forming apparatuses may be made effectively approximate each other through color conversion performed by said part with the use of the color profiles,

wherein said color conversion part uses one of the color profiles to convert input color data, in a device-dependent color space of one of said plurality of image forming apparatuses, to converted color data, in a device-dependent color space of another of said plurality of image forming apparatuses, each of said input color data and said converted color data corresponding to a same color in a data device-independent color space.

35. (original) The image processing apparatus as claimed in claim 34, wherein:

said plurality of color profiles are provided from actually measuring color of an image formed by one of said plurality of image forming apparatuses, and creating a color profile whereby color of an image effectively approximating the measured color is formed by another of said plurality of image forming apparatuses approximately equal thereto.

36. (original) The image processing apparatus as claimed in claim 34, wherein:

said plurality of color profiles comprise color profiles whereby a color difference in a color space which does not depend on apparatus types between images formed by the image forming apparatuses may be made to effectively approximate each other.

37. (original) The image processing apparatus as claimed in claim 36, wherein:

said color space which does not depend on apparatus types comprises any one of an LAB color space, an XYZ color space and an LUV color space defined by CIE.

38. (original) The image processing apparatus as claimed in claim 34 comprising a printer driver provided in a host computer which outputs printing information to the image forming apparatus.

39. (original) The image processing apparatus as claimed in claim 34 comprising a controller provided in one of the plurality of image forming apparatuses which forms an image having color which is made to effectively approximate color of image formed by another of said plurality of image forming apparatuses with the use of the color profile.

40. (original) The image processing apparatus as claimed in claim 34, wherein:

said plurality of color profiles comprise color conversion tables for performing color conversion in an RGB color space or conversion tables for performing color conversion from an RGB color space to a CMYK color space.

41. (original) The image processing apparatus as claimed in claim 34, further comprising a part selecting a color profile to be applied from among the plurality of color profiles.

42. (original) The image processing apparatus as claimed in claim 41, wherein:

a host computer which provides printing information to the image forming apparatus comprises said part selecting a color profile to be applied from among the plurality of color profiles.

43. (original) An image forming apparatus comprising:

the image processing apparatus claimed in claim 34; and

an image forming part which forms a visible image on a recording medium based on image information output from said image processing apparatus.

44. (new) The image processing method as claimed in claim 1, further comprising:

forming a color profile configured to include for each of a plurality of coordinates of a RGB color space of a first image forming apparatus a correspondence relationship of the coordinate of the RGB color space of said first forming apparatus to a simulated coordinate in a RGB color space of a second image forming apparatus.

45. (new) The image processing method as claimed in claim 44, further comprising

generating first color patches with said first image forming apparatus utilizing RGB color patch data, obtaining first measurements of said first color patches in a device-independent color space, and establishing a first correspondence relationship of a RGB color space of said first image forming apparatus to said device-independent color space, based on said RGB color patch data and said first measurements in said device-independent color space.

46. (new) The image processing method as claimed in claim 45, further comprising

generating second color patches with said second image forming apparatus utilizing said RGB color patch data, obtaining second measurements of said second color patches in said device-independent color space, and establishing a second correspondence relationship of a RGB

color space of said second image forming apparatus to said device-independent color space, based on said RGB color patch data and said second measurements in said device-independent color space.

47. (new) The image processing method as claimed in claim 46, further comprising establishing a simulator representing for each of said first measurements in said device-independent color space, a reverse relationship of said device-independent color space to said RGB color space of said second image forming apparatus, based on said second correspondence relationship.